

EXTRACTS FROM THE LOG OF THE EOLIS.

BY JOHN B. HENDERSON, JR.

(Concluded from p. 72.)

"May 30, 1911" (off Key West). ". . . 6 a. m.—We take a position about where we failed yesterday in 50 fathoms, using the medium dredge for several unsuccessful hauls; then we bend on 'old Sampson' (our largest and heaviest dredge) and lower away. This time the bag comes up full of large broken shells, mostly *Pectens* and large bivalves all dead and worn, from shallow water; this is no good at all. Run out to 90 fathoms and make three very good hauls on the edge of the Pourtales Plateau. The features of the bag are some very interesting Murices of the *Pteronotus* group with wide foliated varices and quite suggestive of certain Pacific Coast species. Also *Murex beaulti*, a very fine species of that fine genus. We especially rejoice over these Murices for with them added to our records we have nearly completed the list of Atlantic Coast Muricidæ. *Voluta dohrni*, *Calliostoma bairdii*, a superb *Fusus eucosmia* twice the size of any specimens I have ever seen. It nearly took our breath away. . . . The clearness of the water here is most striking. We always watch over the side of the boat to see who will first distinguish the dredge as it is being hauled up by the power winch. Its white skirts begin flashing so far below the surface we have been speculating upon the actual distance. We measured the rope to-day and found that we could actually see the dredge at 104 feet."

"June 11, 1911" (Key West). "In bagging the dried siftings of a haul made yesterday in 90 fathoms, we made the splendid discovery of a *Haliotis*. This is probably *Haliotis pourtalesii* of Dall, described by him from memory of the unique specimen which was destroyed in the Chicago fire. Pourtales obtained his specimen right about here. This one just taken is now the only specimen 'in captivity.' We are quite excited about it . . . alas, we need all the cheer we can find, for the loss of our two carefully designed traps and 'old Sampson,' all in one day, has cast a gloom upon us . . . 61 fathoms, a fragment, though brightly colored, of *Voluta junonia*, the first in our records."

"June 6, 1911" (Key West). ". . . proceeding out we meet a stiff wind with swell and a nasty chop on top, but we try out a few

hauls nevertheless in shallow water, 20 fath. Position, close to outer edge of Florida Reef. Excellent bottom, though not very rich in mollusks. An apparently new *Scala*, with deeply channelled sutures, giving it a pagoda-like appearance, the ribs quite obsolete. The animal placed in alcohol at once exuded a large amount of purple liquid. We are pleased to see that it is possible to dredge in so rough a sea, but when wind, sea and current all pull together, it is hard."

"June 9, 1911" (Tortugas Islands). ". . . about three miles out from the big red sea buoy, five hauls on rough to hard sand bottom,—the poorest five hauls that any one ever made. One bright spot in the morning's work is a living *Voluta junonia*, a young specimen, but at last we may say that we have collected this rare and most desirable shell alive." . . . (on Garden Key, Tortugas). ". . . we discover a patch of coral rock making out from shore and we fall greedily upon it. The rock extends out but a short distance to the edge of the dredged channel to the Fort; there the bottom falls steeply to a depth of about thirty feet, the water being clear as crystal. Upon this pile of half-submerged rock we obtain some delightful collecting. Very fine specimens of a small race of *Cypraea exanthea* are abundant along with the usual run of reef species, all shells being very free of calcareous deposits. Red and yellow Pectens are abundant, clinging, for the most part, to the rocks by byssi; there are also pure white Limas that display their wonderfully-decorated mantle edges; they are very agile and dart about by a rapid spasmodic opening and closing of their shells. The larger specimens are always fixed by the byssus in crevices of the rocks. The Trochids and *Turbinidæ* are especially well represented on this reef. To facilitate our work we all enter the water regardless of clothes. It is too deep for rubber boots, the sun is too powerful for naked backs. We vary our labors by an occasional swim about the outer edge of the rocks,—it feels so odd to be fully clothed in the water . . . this little reef is perfectly delightful. A large quantity of exquisite fish of the 'Angel fish' type,—veritable butterflies as to color—hover about, almost touching our hands and acting in the most friendly and confidential manner, yet always skilfully avoiding capture by just eluding one's grasp; they seem not in the least frightened by such hostile demonstration. Now and then large fish weighing ten to twenty pounds come leisurely swimming along and inspect us

carefully, and then decide to hang around awhile. We are in a perfect aquarium,—a part of it—and we are upon the most intimate terms with all the other inhabitants. Great care must be taken to avoid touching the sharp-spined sea-urchins, especially the *Diadema*, whose purple and black spines are six inches long and as sharp as needles, brittle as glass and poisonous . . . such a wealth of crustacea, such beautiful Eolids with green and yellow filagree-work along their backs; they crawl over one's hands under water like caterpillars; such stealthy Octopi sneaking over the rocks,—one recoils from them as from a snake. How fascinating this reef collecting is. Poor Clapp; if these were only land shells, how much more he would enjoy it. . . .”

NOTES.

A CONCHOLOGIST'S DIRECTORY.—The undersigned intends publishing, on or before January 1, 1912, a Directory of American Conchologists. No charge is made for inserting names and addresses, but if a copy of the Directory is desired, send 25 cents as early as possible.

Persons ordering in advance may choose a subject and have the same designated after their name. Conchologists should state if they have a collection, the size of the same, and whether exchanges are invited, etc.

If sufficient interest is shown, the Directory will be published annually until the formation of a national society. Address,

MAXWELL SMITH, Hartsdale, N. Y.

TEACHING NATURAL HISTORY.—So far as I know, this is the only high school in America where an effort is made in the regular zoology classes to teach pupils the systematic collection and naming of our common insects and shells. This may be right or it may not, but the unusual interest manifested in our classes urges me to write this, thinking that it may be helpful to others. I shall speak of the shells only.

I read to all my classes the peculiar incident told by Mr. Henderson in his Cuban trip collecting *Urocoptis elliotti*. It will open the eyes of over 100 boys and girls to see things when they go to Cuba.